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REMARKS

Claims 1-31 are pending herein. By the Office Action, Claims 1-31 are rejected under 35 U.S.C. §101 as directed to non-statutory subject matter; Claims 1-31 are rejected under 35 U.S.C. §112 because the rejection is required in conjunction with a §101 rejection. By this amendment, Claims 1, 19, and 31 are amended. No new matter is added. Applicants respectfully traverse the rejection.

Rejection of Claims Under 35 U.S.C. §101

The amendment to Claims 1, 19, and 31 is a broadening amendment submitted to more fully claim that which is Applicants' invention, and is not intended to limit or narrow the scope of the claims or to effect the Doctrine of Equivalents as it might be applied to the claims, were they unamended.

By this Amendment, Claims 1, 19, and 31 are amended to more clearly present the practical application in the technological arts to which they are directed. Specifically, Claims 1, 19, and 31 as amended describe the practical application as providing resolution of control problems within computer controlled systems having a plurality of subsystems, with each subsystem having networked sensors and implementation units as well as its own control, monitoring, and fault diagnosis capabilities. The computer controlled system includes an applications module within which reside a control module and a problem solver, with the control module receiving instructions as to resource constraints and system performance goals and current state data from the implementation units and transmitting this information to the problem solver. The problem solver utilizes a plurality of solvers and feedback control to resolve system performance problems, and the control module transmits commands in conformance with these solutions to the subsystem controllers directing operation of the implementation units.

Additionally, Claims 1, 19, and 31 are also amended to more clearly set forth a "useful, concrete and tangible result". Specifically, the claims are amended to describe the useful result of operation of the problem solver as determining a resolution for system performance problems and transmitting this resolution to the system control module, which formulates control signals to be transmitted to subsystem controllers and from there to the implementation units affected. The type of problem being resolved is also more fully described as being a system performance

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problem to be solved utilizing a plurality of constraint problem solvers. The problem statement includes system performance constraints, current states of the implementation units, system performance goals, a desired solution quality, and a time deadline for resolving the system performance problem, which are real world data which is transformed by the process to produce control instructions. Also, the solver parameter values, as amended in Claims 1, 19, and 31, are those values which satisfy unit usage constraints, such as performance constraints, within a specified time bound.

Applicants believe that these amendments address the Examiner's concern and respectfully request reconsideration and withdrawal of the rejection.

Rejection of Claims Under 35 U.S.C. §112

By this Amendment, Claims 1, 19, and 31 are amended as described above to more clearly describe the practical application of the subject application as being the resolution of performance problems within complex computer-controlled systems (such as in a production environment) having a plurality of subsystems, with each subsystem having networked sensors and implementation units as well as its own control, monitoring, and fault diagnosis capabilities. Such systems require satisfactory decisions in critically time-constrained situations and existing problem solvers do not provide the capability to adapt their execution or execute within the resource bounds of the applications. Applicants believe that the claims as amended provide the practical application necessary to satisfy the Examiner's concerns and respectfully request withdrawal of the rejection.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

Entry of the above amendments is respectfully requested.

No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation Attorney hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025. This also constitutes a request for any needed extension of time and authorization to charge all fees therefor to Xerox Corporation Deposit Account No. 24-0025.

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In the event the Examiner considers personal contact advantageous to the disposition of this case, s/he is hereby authorized to call Applicants' Attorney, Linda M. Robb, at telephone number 310-333-3683, El Segundo, California.

Respectfully submitted,

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Xerox Corporation
El Segundo, California
Date: March 14, 2006

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